WHAT IS CLAIMED IS:

1. A process for designing a flight controller, the process comprising the acts of:

determining a damping and phase delay for each excitation frequency first for a rigid airplane and then for an elastic airplane;

adapting the flight controller such that structural responses to each excitation frequency for both the rigid airplane and the elastic airplane in an open control circuit outside of two design fields, applicable to the elastic airplane, are located around instability points in a data field comprising the damping and phase delay; and

wherein for the design of the elastic airplane a damping exceeding -6 dB is allowed between the phase delays of -270 degrees and -495 degrees.

2. The process for designing a flight controller according to claim 1, wherein a design curve for the rigid and elastic airplane must be located below and/or aside of a first and a second of said two design fields due to a corresponding adaptation of the flight controller;

further wherein the first design field is formed by data points determined by a gain and the phase delay arising from an excitation of the airplane: (+c, -270 degrees), (+c, -180

degrees), (+c/2, -135 degrees), (-c/2, -135 degrees), (-c, -180 degrees), (-c, -240 degrees), (-2/3 c, -270 degrees); and

further wherein the second design field is determined by the following data points: (+c, -630 degrees), (+c, -540 degrees), (+c/2, -495 degrees), (-c/2, -495 degrees), (-c, -540 degrees), (-c, -600 degrees), (-2/3, -630 degrees);

where edges of the two design fields are chamfered by 45 degrees, starting from at least a damping of (+/- 2/3 • d1); and

where the value c is at least 4 dB and the value d1 is at least 4 dB.